# UNITED STATES PATENT AND TRADEMARK OFFICE

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| 10/626,925 | 07/25/2003 | Stephen D. Richardson | M61.12-0554 | 5396 |

| | | | EXAMINER |
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| 27366 | 7590 | 03/28/2007 | ALBERTALLI, BRIAN LOUIS |

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| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 10/626,925 | RICHARDSON ET AL. |
| | Examiner | Art Unit | |
| | Brian L. Albertalli | 2626 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____ .
2a)☐ This action is **FINAL**.     2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-28* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-28* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____ .
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____ .
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____ .

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1.     The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.     Claims 1-7, 10, 13-20, 23, 26, and 27 are rejected under 35 U.S.C. 102(b) as

being anticipated by Takeda et al. (U.S. Patent 5,826,220).

In regard to claim 1, Takeda et al. disclose a computer-implemented method for

providing information to an automatic machine translation system to improve translation

accuracy (Figs. 20A and 20B), the method comprising:

receiving a collection of source text (an original language sentence, column 9,

lines 65-67);

receiving from the automatic machine translation system an attempted translation

that corresponds to the collection of source text (step 713, a translated sentence is

produced column 10, lines 49-51);

receiving a correction input that is configured to effectuate a correction of at least

one error in the attempted translation (the user carries out a correction operation on the

incorrect translated sentence, column 10, lines 62-67); and

providing information to the automatic machine translation system to reduce the

likelihood that the error will be repeated in subsequent translations generated by the

automatic machine translation system (the correction is registered so that later

translations will be correctly translated according to the correction, column 11, lines 10-38).

In regard to claim 2, Takeda et al. disclose providing information comprises providing the correction input (the correction word is provided as learning data for the translator, column 11, lines 10-20).

In regard to claim 3, Takeda et al. disclose providing information comprises providing information to be assimilated into the automatic machine translation system (the learning data is registered with the translator, column 11, lines 10-20).

In regard to claim 4, Takeda et al. disclose providing update information to be assimilated into a knowledge source associated with the automatic machine translation system (the learning data is registered in a learning dictionary, Fig. 14, 5e and column 8, lines 38-44; the information in the learning dictionary is used by the translation unit 4 to translate, and is thus a "knowledge source", column 8, lines 6-21).

In regard to claim 5, Takeda et al. disclose providing update information to be assimilated into translation correspondences associated with the automatic machine translation system (the learning data is registered in a learning dictionary, column 8, lines 38-44; the learning dictionary contains "translation correspondences", i.e. the

correspondence of an original language word to a translation language word, column 8, lines 6-21).

In regard to claim 6, Takeda et al. disclose providing update information to be assimilated into a collection of linguistic structures associated with the automatic translation system (part of speech, conjugations, etc. are registered in the learning dictionary, column 11, lines 10-20).

In regard to claim 7, Takeda et al. disclose providing update information to be assimilated into a database of corresponding logical forms associated with the automatic machine translation system (the learned translation data is assimilated with lexical rules used for translation, column 9, lines 3-10).

In regard to claim 10, Takeda et al. disclose providing update information to be assimilated into a collection of groups of corresponding words or phrases associated with the automatic machine translation system (a group of corresponding words comprising a headword, a top candidate translation word and a selected translation word are registered in the learning dictionary, column 11, lines 10-20).

In regard to claim 13, Takeda et al. disclose receiving a correction input comprises receiving at least one correction instruction from a human translator (a human user selects a correct translation word, column 8, lines 38-44).

In regard to claim 14, Takeda et al. disclose a computer-implemented method for improving the performance of a user's specialized translation system that operates in association with an automatic machine translation system (Figs. 20A and 20B), comprising:

submitting a source text to the specialized translation system for assistance in translation (an original language sentence, column 9, lines 65-67);

identifying at least a portion of the source text for which the specialized translation system cannot provide a suitable translation (an area where no appropriate translation word is selected, column 11, lines 39-44);

receiving from the automatic machine translation system an attempted translation that corresponds to said at least a portion of the source text (step 713, a translated sentence is produced column 10, lines 49-51);

receiving a correction input from the user that is configured to effectuate a correction of at least one error in the attempted translation (the user carries out a correction operation on the incorrect translated sentence, column 10, lines 62-67); and

providing information to the automatic machine translation system to reduce the likelihood that the error will be repeated in subsequent translations generated by the automatic machine translation system (the correction is registered so that later translations will be correctly translated according to the correction, column 11, lines 10-38).

In regard to claim 15, Takeda et al. disclose providing information comprises providing the correction input (the correction word is provided as learning data for the translator, column 11, lines 10-20).

In regard to claim 16, Takeda et al. disclose providing information comprises providing information to be assimilated into the automatic machine translation system (the learning data is registered with the translator, column 11, lines 10-20).

In regard to claim 17, Takeda et al. disclose providing update information to be assimilated into a knowledge source associated with the automatic machine translation system (the learning data is registered in a learning dictionary, Fig. 14, 5e and column 8, lines 38-44; the information in the learning dictionary is used by the translation unit 4 to translate, and is thus a "knowledge source", column 8, lines 6-21).

In regard to claim 18, Takeda et al. disclose providing update information to be assimilated into translation correspondences associated with the automatic machine translation system (the learning data is registered in a learning dictionary, column 8, lines 38-44; the learning dictionary contains "translation correspondences", i.e. the correspondence of an original language word to a translation language word, column 8, lines 6-21).

In regard to claim 19, Takeda et al. disclose providing update information to be assimilated into a collection of linguistic structures associated with the automatic translation system (part of speech, conjugations, etc. are registered in the learning dictionary, column 11, lines 10-20).

In regard to claim 20, Takeda et al. disclose providing update information to be assimilated into a database of corresponding logical forms associated with the automatic machine translation system (the learned translation data is assimilated with lexical rules used for translation, column 9, lines 3-10).

In regard to claim 23, Takeda et al. disclose providing update information to be assimilated into a collection of groups of corresponding words or phrases associated with the automatic machine translation system (a group of corresponding words comprising a headword, a top candidate translation word and a selected translation word are registered in the learning dictionary, column 11, lines 10-20).

In regard to claim 26, Takeda et al. disclose receiving a correction input comprises receiving at least one correction instruction from a human translator (a human user selects a correct translation word, column 8, lines 38-44).

In regard to claim 27, Takeda et al. disclose a computer-implemented method for improving the performance of a user's specialized translation system that operates in

association with an automatic machine translation system (Figs. 20A and 20B),

comprising:

submitting a text to the specialized translation system for assistance in

translation (an original language sentence, column 9, lines 65-67);

ascertaining that the specialized translation system cannot provide a suitable

translation of the text (an area where no appropriate translation word is selected,

column 11, lines 39-44);

receiving from the automatic machine translation system an attempted translation

that corresponds to the text (step 713, a translated sentence is produced column 10,

lines 49-51);

receiving a correction input from the user that is configured to effectuate a

correction of at least one error in the text (the user carries out a correction operation on

the incorrect translated sentence, column 10, lines 62-67); and

providing update information to be assimilated into a knowledge source

associated with the automatic machine translation system, the update information being

configured to reduce the likelihood that the error will be repeated in subsequent

translations generated by the automatic machine translation system (the correction is

registered so that later translations will be correctly translated according to the

correction, column 11, lines 10-38).

## *Claim Rejections - 35 USC § 103*

3.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.      Claims 8, 12, 21, and 25 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Takeda et al., in view of O'Donoghue (U.S. Patent 5,867,811).

In regard to claims 8 and 21, Takeda et al. do not disclose providing update

information to be assimilated into a collection of statistical parameters associated with

the automatic machine translation system.

O'Donoghue disclose a method for updating a translation database, comprising

providing update information to be assimilated into a collection of statistical parameters

associated with the automatic machine translation system (a human translator provides

a translation for a portion of text untranslatable by a machine translator, which is used to

update a statistical translation database, column 9, lines 41-58).

It would have been obvious to one of ordinary skill in the art at the time of

invention to modify Takeda et al. to assimilate update information into a collection of

statistical parameters associated with the automatic machine translation system,

because this would further increase the accuracy of the machine translation system.


In regard to claims 12 and 25, Takeda et al. do not disclose providing information

comprises providing a bilingual corpus of one or more sentence pairs.

O'Donoghue disclose a method for updating a translation database, comprising providing information comprises providing a bilingual corpus of one or more sentence pairs (a human translator provides a translation for a portion of text untranslatable by a machine translator, which is used to augment an aligned bilingual corpora, column 9, lines 41-58).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Takeda et al. to provide a bilingual corpus of one or more sentence pairs, because this would further increase the accuracy of the machine translation system.

5.      Claims 9 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al., in view of Kuno et al. (U.S. Patent 5,528,491).

In regard to claims 9 and 22, Takeda et al. do not disclose providing update information to be assimilated into a collection of parsing information associated with the automatic machine translation system, the parsing information being information that enables a parser to provide analysis of a collection of segments.

Kuno et al. disclose a method wherein update information is assimilated into a collection of parsing information associated with the automatic machine translation system, the parsing information being information that enables a parser to provide analysis of a collection of segments (a user interacts with an alternate parse system to analyze a collection of segments, column 3, lines 53-55 and column 10, lines 1-9).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Takeda et al. to assimilate update information into a collection of parsing information, because this would further increase the accuracy of the machine translation system.

6.      Claims 11, 24, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al., in view of Cheng et al. (U.S. Patent 7,110,938).

In regard to claims 11, 24, and 28, Takeda et al. disclose the update information being configured to reduce the likelihood that the error will be repeated in subsequent translations generated by the automatic machine translation system (the correction is registered so that later translations will be correctly translated according to the correction, column 11, lines 10-38).

Takeda et al. do not disclose transmitting update information across a network to be assimilated into a knowledge source associated with a different automatic machine translation system.

Cheng et al. disclose a network based translation method comprising transmitting update information across a network to be assimilated into a knowledge source associated with a different automatic machine translation system (Fig. 2, a network translation database 20 is used for translation, column 3, lines 33-44; when translations are provided by human translators the network translation database 20 is updated so that multiple translation systems can use the database, column 5, lines 6-15).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Takeda et al. to transmit update information across a network to be assimilated into a knowledge source associated with a different automatic machine translation system, because this would allow multiple customers to utilize the updated information.

### *Conclusion*

7.      The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wang et al. (*Intelligent Case Based Machine Translation System*) and Winiwarter (*Embedded Adaptive Machine Translation Environments*) disclose adaptive machine translation systems.  Kumhyr (U.S. Patent Application Publication 2002/0165708) disclose a method for correcting interlingua in a machine translation system.  Kaji et al. (U.S. Patent 4,599,612) disclose a user interface for correcting machine translation.  Miyao et al. (U.S. Patent 4,800,522) disclose a machine translation system that can learn new words.  Miike et al. (U.S. Patent 5,214,583) disclose updating a translation dictionary with user corrections.  Golding (U.S. Patent 6,192,332) discloses a method that communicates across a network to obtain translation updates.  Tominaga (U.S. Patent 5,311,429) disclose a method that updates a dictionary when a user approves a translation.

8.      Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian L. Albertalli whose telephone number is (571) 272-

7616. The examiner can normally be reached on Mon - Fri, 8:00 AM - 5:30 PM, every second Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BLA 3/21/07

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